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STATE OF BRUNEI

ANNUAL REPORT

ON THE

MEDICAL DEPARTMENT

FOR THE YEAR

1929

BY

K. V. VEERASINGAM, L.M.S. (Singapore)

Acting Medical Officer, Brunei

Singapore :

Printed at the GOVERNMENT PRINTING OFFICE, SINGAPORE,
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Annual report on the Medical Department, Brunei, for the year 1929

I.—ADMINISTRATION

(a) *Staff.*—

Medical Officer: Dr. K. V. VEERASINGAM, L.M.S. (Singapore), was appointed to act as the first Resident Medical Officer for Brunei and assumed duties on the 7th February, 1929.

Dressers: MOHAMED YUSOFF bin ABDUL RAJID, Grade II, Dresser was appointed as Dresser in charge of Government Hospital and Dispensary, Brunei, and assumed duties on the 1st July, 1929.

ABDULKHAN bin NOORSAH, Grade II, Dresser continued as Travelling Dresser and Vaccinator throughout the year.

SHIM FOOK MUI and MOHAMED HUSSAIN bin TARAM were appointed as Probationer Dressers as from 1st August, 1929.

The Medical Officer is also Registrar of Births and Deaths and Assistant Controller of Labour for the State.

(b) *Financial.*—

The actual Medical expenditure and the Revenue collected were:—

EXPENDITURE

	\$	c.
Expenditure including personal emoluments	10,297	75
Initial Equipments to the Hospital	...	2,000 00
Purchase of Medicines, etc.	...	1,958 55
Patients Diets	...	573 04
		<hr/>
	\$14,829	34

REVENUE

	\$	c.
Sale of medicines and Hospital charges	...	1,083 15
Total Revenue of the State	...	345,290 00
Total Expenditure of the State	...	344,092 00

II.—PUBLIC HEALTH

There was no notable outbreak of any form of disease during the year. The following table shows the monthly mortality figures in the State during the year as compared to the previous year:—

		1928	1929
		—	—
January	... ..	83	65
February	... ..	71	43
March	... ..	80	64
April	... ..	74	47
May	... ..	74	61
June	... ..	80	65
July	... ..	95	77
August	... ..	78	80
September	... ..	90	82
October	... ..	69	65
November	... ..	84	78
December	... ..	74	72
		—	—
Total deaths	...	952	799
		—	—
Estimated population	...	35672	28329
Death-rate per thousand	...	26.68	28.20
Infantile death-rate per thousand births	... ..	360.10	261.87

Total rainfall for the year was 125.74 inches as compared to 131.53 inches during the previous year.

During the year 9,701 persons entered the State from other countries and 17,467 left.

GENERAL DISEASES

The causes of deaths registered in the State continue to be largely a matter of speculation. Dead bodies are rarely seen by a Medical authority and the original registration of deaths is normally done by the Police.

1. *Beri-beri*.—Death totalled 29. The disease is widely prevalent among the natives, particularly Malays, who use Polished rice exclusively.

2. *Convulsions*.—Deaths under this head numbered 70—and this was the chief cause of deaths of Infants under one year of age. Such deaths are reported to the Police as due to “Sawan”, the Malay equivalent of convulsion.

It is to be understood therefore that a variety of infantile disorders are included under this term.

3. *Pneumonia*.—Total deaths were 32.

DANGEROUS INFECTIOUS DISEASES

There was no outbreak of either Small-pox, Cholera, Plague or Cerebro-spinal Meningitis.

Vaccinations.—Total number of vaccinations performed was 422 as compared to 757 for the previous year.

Perfect	...	...	...	342
Modified	...	...	...	20
Failed	...	...	...	5
Not seen	...	...	...	55
Total				422

There is as yet no Enactment for compulsory Vaccination, but legislation is under the consideration of Government.

OTHER INFECTIOUS DISEASES

(1) *Tuberculosis*.—32 deaths were registered as due to Tuberculosis.

This disease is fairly prevalent even in the river kampongs.

(2) *Malaria*.—This includes deaths registered as due to "Fever unclassified" and amounted to 64.

(3) *Dysenteries and Diarrhœas* were responsible for 41 deaths.

VENEREAL DISEASE

Venereal diseases are rare and do not call for any special measures. Fifty-two cases were treated and 232 Injections of Neosalvarsan were given. Most of these cases definitely originated in other countries.

HELMINTHIC DISEASES

Ankylostomiasis.—Out of the total number of 336 specimens of stools examined by Willis' floatation method, ninety-four showed presence of ovæ thereby indicating 28% infection. In no case was the infection found to be heavy, thus eliminating it as the primary cause of disease.

Round worms Infections are almost universal among the rich and poor alike and are the cause of serious bowel disorders, and of deaths among children. The percentage of Infection is about 90, and among children alone about 100. Heavy infections with this type of worms are common and in 32 cases 100 worms or more were passed after treatment.

VITAL STATISTICS

Estimated population at the end of the year was 28,329 as compared with 35,672 in the previous year.

Births.—The number of births registered throughout the State was 1,222 (males 648 and females 574) as against 1,074 (males 529 and females 545) in the previous year. This represents a crude birth-rate of 43·13 per thousand living as compared with 30·10 in 1928.

There were 27 Still-Births during the year.

Deaths.—Deaths from all causes were 799 (males 426 and females 373) as compared with 952 (males 510 and females 442) in 1928, thus representing a death-rate of 28·20 per thousand living as compared to 26·68 for the previous year.

Deaths of Infants under one year of age were 320 and the mortality rate was 261·87 as compared with 387 deaths and a mortality rate of 360·30 in the previous year.

Infantile mortality claimed 40·05 per cent of the total deaths as compared with 40·65 per cent for the previous year.

Appendix A, Table I.—Births registered during each month according to sex.

Appendix A, Table II.—Births registered according to nationalities.

Appendix A, Table III.—Deaths registered during each month according to sex.

Appendix A, Table IV.—Deaths registered according to nationalities.

Appendix A, Table V.—Infantile mortality registered during each month according to sex.

Table showing the sick, invaliding and death-rates of European Officials of all ranks :—

Total number of Officials on the establishment ...	3
Average number resident ...	3
Total number on the sick list ...	3
„ „ of days on sick list ...	32
„ „ invalided ...	Nil.
„ deaths ...	Nil.

Table showing the sick, invaliding and death-rates of Non-European Officials of all ranks:—

Total number on the establishment	...	140
Average number resident	...	137
Total number on the sick list	...	49
Total number of days on sick list	...	207
Total number invalided	...	Nil.
Total deaths	...	Nil.
Average daily number on sick list	...	·11
Average number of days on sick list	...	5·17
Percentage of deaths to number resident	...	—
Percentage of sick to number resident	...	·29

GENERAL EUROPEAN POPULATION

There were 38 Europeans resident in the State on the average. Their health was good.

III.—HYGIENE AND SANITATION

The Medical Officer is also Health Officer for the State. There are three Sanitary Board areas in the State:—

The town of Brunei, and the villages of Tutong and Kuala Belait. The two latter villages were included during the year.

There is one Sanitary Inspector for the Town of Brunei.

(i) PREVENTIVE MEASURES

Mosquito and insect borne diseases.—Malaria, though prevalent in some parts of the State, is not a scourge in the capital, important villages, Estates or Oil fields. During the year a general mosquito survey of Brunei Town and the villages of Tutong and Kuala Belait was carried out. Considering the vast net work of badly kept and open earth drains, ideal hill streams and swamp areas, some of which are tidal, in and about the outskirts of these places, the breeding places were found to be rare.

A. Ludlowi was found to breed in three small pools in Brunei Town and these places have now been filled in. This type of Anapheline is probably the only carrier and undoubtedly breeds in the vast swamps adjoining the Brunei river, which are difficult to investigate, drain or oil effectively. In the up-land areas of Brunei Town and in the villages, A. Barbirostris, A. Kochi and A. Aconitus were found to predominate. Though some spots were found to be ideal, A.

Maculatus has so far not been found to breed. The soil of Brunei is pervious with disintegrated strata of sand stone and in places coal. Strata of granite in the hills are unknown.

The ravines and water courses in most parts are not cleared and are overgrown with thick vegetation.

Dr. A. L. Hoops, the Honourable the Principal Civil Medical Officer, Straits Settlements, in his report on his visit of inspection to Brunei in 1921 states.—“I cannot give too strong a warning against such misdirected energy as might lead to the clearing of these watercourses”. He points out that “in the Dindings where, however, the formation is granite, malignant malaria has abounded ever since similar ravines were cleared of vegetation”. A similar condition prevails in Miri, the Oil fields of Sarawak, where malaria was unknown prior to the clearing of the hills and ravines. Each year since, as the hills, including ravines and water courses have been cleared, malaria of malignant type has become commoner.

He further emphasizes that “in Brunei the natural defences still exist. The damage has not been done. If it is intended to clear hill land there, a careful health survey should first be made by a competent Health Officer and his advice should not be disregarded”.

Though the town of Brunei has grown much bigger since his visit, the hills and ravines have not been touched. The warning, however, would be of vital importance when more vigorous Building or Agricultural pursuits are to be introduced in the outskirts of Brunei Town.

(ii) GENERAL SANITATION AND CONSERVANCY WORK

Under this heading are included inspection of dwelling and eating houses, coffee shops, market, Slaughter houses, bakeries, Scavenging in Sanitary Board areas, Sanitary supervision of Police Stations, Jail, Rubber Estates, control of water supplies and Sanitary control of Schools.

All the eating houses, coffee shops, bakeries, market and Slaughter houses were regularly inspected by the Sanitary Inspector and a number of similar inspections in cases of difficulty and complaint were carried out by the Medical Officer. Systematic sanitation of Crown lands, houses and buildings was also introduced. Scavenging which was previously confined to the shop houses was extended to Government Quarters and other houses in the outskirts of the town of Brunei. All houses are provided with a standard type of dust bin. There is no control of Sanitation in the

villages in Brunei, but it is hoped to introduce a modified system early next year in the villages of Tutong and Kuala Belait.

There never was any form of conservancy system in Brunei, except in the Quarters for the Europeans where the flush system predominated. The Government has provided four Public latrines for the town of Brunei over the river—two for men and two for women. The necessity for separate latrines to all the houses, has been realised and it has been decided to request the owners to get Sanitary bucket latrines constructed early in 1930, and then to enforce a system of compulsory night soil removal under the direct supervision of the Sanitary authorities.

Arrangements are in progress to provide similar latrines for all the Government Quarters.

(iii) WATER

The water supply to the town of Brunei is piped from a reservoir on an adjacent hill. The water is of good quality and abundant. The sources of water supply in the villages and rural areas are far from satisfactory. Normally, springs, shallow earth wells and rivers are the sources of supply for drinking, bathing and washing purposes and as they are unprotected become easily polluted. In places where rivers are used as sources of supply it is not unusual to see even latrines constructed over them. Filtering or even the value of boiling the water prior to use for drinking is unknown to the natives.

(iv) BUILDINGS

The Town of Brunei is well laid out, with wide roads and sufficient space for back-lanes. All the houses are of good Sanitary pattern.

The villages are irregular collections of plank or attap houses with no form of Sanitation. Since the villages of Kuala Belait and Tutong have been declared as Sanitary Board areas construction of houses is now under the control of the Board and Sanitary types are required.

(v) MATERNITY AND INFANT WELFARE

Maternity among the natives is a crude art and Infant Welfare a primitive science. Out of every 1,000 children that are born 300 or probably more, die before they attain the age of one year. Such high mortality represents a preventable situation. Unskilled midwifery, improper feeding, ignorance, and the apathy of the masses contribute to this end. There is not a single qualified Midwife in the whole State and midwifery practice is entirely in the hands of uneducated and ignorant old women.

(vi) SCHOOL HYGIENE

There are five Vernacular schools in Brunei with a total number of 532 boys registered. The schools were visited once a week by the Travelling Dresser and necessary treatments were given to the school children.

Lectures on Personal Hygiene and preventable diseases were also given to the school children and the teachers, and now the study of these has been introduced as a part of their school curriculum.

Routine examination of the all the school children was carried out once during the year by the Medical Officer with the following results:—

Number of schools	...	5		
„ pupils registered	...	532		
„ pupils examined	...	513		
„ pupils with poor general condition	...	221	Percentage	43·08
Number of pupils with enlarged spleen	...	77	„	15·05
Number of pupils with skin diseases	...	86	„	16·76
Number of pupils with defective teeth	...	176	„	34·31
Number of pupils with affec- tions of Respiratory system	...	18	„	3·31
Number of pupils with affec- tions of Circulatory system	...	6	„	1·17
Number of pupils that required vaccinations	...	46	„	8·97
Number of pupils with affec- tions of the eye	...	12	„	2·34
Number of pupils with affec- tions of the Ear	...	9	„	1·75
Number of pupils with Yaws	...	12	„	2·34

The spleen rates in the different schools varied from 10% in Bangar to 15% in Brunei Town.

Detailed results of the examination are given in Appendix B.

The high percentage of the poor general condition was found to be due to the high percentage of Round-worm infection. It was particularly interesting to note that there was direct relationship between the intelligence of the pupils and their health. It was among the pupils that were backward in the class and who absented themselves frequently

from the school that higher percentage of sickness was noticed. Children with enlarged spleen were dosed with Quinine regularly for at least three months.

(vii) ESTATES

There are four European Managed Rubber Estates in Brunei with an average resident population of 894. Twelve visits were paid to these Estates during the year by the Medical Officer, who is also Assistant Controller of Labour. In each of the Estates there is a Resident Dresser and also a small Hospital where minor complaints are treated. Serious cases are sent to the Government Hospital, Brunei. Health of the Labour force in all the Estates was satisfactory.

The following table shows the common causes of illness of those treated either in Hospital or lines during the year :—

ESTATES	Acrage	Population	Births	Total treated	Dysentery and Diarrhoeæ	Malaria	Beri Beri	Intestinal worms	Total deaths	Infant mortality
Brunei United Plantation	3,819	268	2	312	12	32	10	59	2	...
Gadong	1,863	115	3	86	6	22	18	21	2	1
Batu Apoi	1,040	159	3	123	5	17	1	31	10	1
Labu	1,072	185	3	112	8	24	...	36	1	1
Biang	2,130	167	5	112	2	11	1	23	...	1
	9,924	894	16	745	33	106	30	170	15	4

OTHER LABOUR

The British Malayan Petroleum Co. employed a total Labour force of 542 in their Oilfields at Kuala Belait and Labi. The Medical Officer visited these places once during the year. There is a small Hospital in each of these places with a qualified Dresser in charge. A Medical Officer from Miri Oilfields visits these Hospitals at regular intervals. Health of the Labour force had been good. The following table shows the common causes of illness of those treated either in Hospital or lines :—

PLACE OF EMPLOYMENT	Population	Births	Total treated	Dysentery and Diarrhoeæ	Malaria	Beri Beri	Intestinal worms	Total deaths	Infant mortality
British Malayan Petroleum Co., Oilfields	542	6	832	12	31	2	31	2	Nil

The principal health activities in the Estates and other places of employment were in connection with water supply, conservancy, drainage and housing accommodations. Protected sources of water supply in the form of concrete lined wells or construction of reservoirs from safe hill streams are being insisted on. Arrangements are in progress to construct deep tube latrines in all the Estates, where the contour of the land is suitable.

Bucket latrines are in use on the Oilfields.

Malaria was not prevalent in any of these places to any remarkable extent.

Beri-beri was prevalent in Gadong Estate where the labour force consist chiefly of Malays, who use polished Siam rice exclusively. With the introduction of locally cultivated rice and a good supply of fresh vegetables this malady has to a large extent diminished.

Indian Labour.—During the early part of the year three Estates,—Brunei United Plantation, Batu Apoi and Labu—and the Oilfields of British Malayan Petroleum Co. employed Indian labour. During the latter part of the year Batu Apoi and Labu Estates discharged all the Indian labourers and substituted for them with either Natives or Javanese.

Indian labourers are supplied with rice and provisions by the management according to a budget which lays down the maximum price for each of the articles.

Standard rates of wages—56 cents for men and 45 cents for women—were introduced during the year. In the Oilfields the wages range from \$1 to \$1.50 per day.

VITAL STATISTICS OF INDIAN LABOUR

PLACE OF EMPLOYMENT	Population	Births	Total treated	Dysentery and Diarrhoea	Malaria	Beri Beri	Total deaths	Infant mortality
Brunei United Plantation ...	122	2	214	11	6	...	2	...
Batu Apoi ...	126	3	84	4	7	...	2	1
Labu ...	28	2	18	3	2	...	...	1
Oilfields ...	204	...	583	14	3	...	...	...
	540	7	899	32	18	...	4	2

The Agent for the Government of India (RAO SAHIB SUPPIA NAIDU), visited Brunei during September, 1929, on inspection of places of employment of Indian Labour. He visited the Brunei United Plantation, which was the only Estate at that time employing Indian labour, and expressed satisfaction at the conditions prevailing there.

(viii) SANITATION IN RIVER KAMPONGS (VILLAGES)

The river kampongs consist of about 800 attap or plank houses in groups, built on piles on the shallow and muddy banks of the Brunei River. All the houses are within a radius or about one mile from the Brunei Town. The population is estimated at about 8,000 consisting chiefly of Malays.

Sanitation in these Kampongs is a subject for special study.

The banks on which these houses are built being shallow are not covered with water except during high tide and the sanitation is purely dependent on the tide to flush away all the dejecta and refuse that collect underneath the houses. As the water is not always there the dejecta have to lie exposed on the banks for several hours at a stretch. When the tide comes up the flushing is never perfect and a certain amount of the dejecta is left behind on the banks a little higher up, thus keeping up continuous sources for contamination and forming suitable breeding grounds for flies, which are found in abundance in all these houses.

The percentage of Round-worm infection among the inhabitants is over ninety. Stomach and Bowel complaints are also common. With flies as the intermediate agents it lays open the possibilities for more serious types of intestinal infections such as typhoid and cholera.

This highly polluted water is used by the entire population for bathing and washing purposes.

Another feature of the insanitary condition of these kampongs is the prevalence of preventable eye diseases chiefly among children under six years of age. Simple Conjunctivitis, Trachoma and Keratomalacia are the common forms and due to the ignorance and neglect of the people these often end in the blindness of those afflicted.

For water supply the Inhabitants depend on the streams which run down to the river from the hills fringing its banks. The water is collected in jars and tins which are brought over in canoes. The safety of such sources of water supply is open to question. The hill slopes are not without human habitations and some parts are used as burial grounds. Realising that there were possibilities for contamination of these streams, the pipe water service from the Reservoir to the Brunei town was extended to one section of the river bank and a stand pipe was put up, where the people from the adjoining river kampongs were allowed to collect sufficient water for their use. Similar stand pipes in the other sections will gradually do away with the use of these hill streams.

Conclusions.—Medical Science is very backward in Brunei and the result is bad sanitation.

The rural houses are insanitary and over-crowded. There is no system of sewage disposal. The standard of living is very low and in ignorance the native is contented to live as his forefathers did.

Progress in Sanitation shall be greatly dependent on the economic progress of the country. It shall be with only education of the masses as the prime factor understanding in better sanitation could be infused. It is with this aim in view the School children and teachers are taught about Hygiene and preventable diseases and propaganda by pamphlets is given a prominent place in the programme.

IV.—POLICE AND PRISONS

(1) *Police.*—

Total number Resident ...	...	...	62
„ treated in Hospital or Dispensary			58
„ of sick days	...	...	327
Percentage of Sick to total number Resident	...		93.53
Average daily number on sick list	...		.16
Average number of days for each patient	...		5.64
Total number invalided	...	...	Nil.
Total deaths	...	...	Nil.

(2) *Prison.*—

Total population in Prison	...	...	59
Average daily number in Prison	...	...	12.86
Total treated in Dispensary or Hospital	...		23
Percentage of Sick to total population	...		39
Total deaths	...	...	Nil.

Three Lunatics were transferred to the Singapore Mental Hospital during the year.

V.—METEOROLOGICAL

Record of Rainfall and temperature are kept by the Medical Department.

The mean temperature for the year was 85.64° F. The total Rainfall during the year was 125.74 inches as compared with 131.53 inches in the previous year. The driest month was July with 1.91 inches of rainfall and the wettest month was May with 23.99 inches. Full particulars are given in Appendix C.

VI.—DISPENSARIES

(a) OUT-DOOR DISPENSARY

Out patients are attended to at the Government Hospital.

Total number of patients treated during the year were 5,872 with 12,587 attendances as compared with 1,321 patients treated with 3,432 attendances during the previous year. The increase is entirely due to the new appointment of a Resident Medical Officer for Brunei. All the natives were treated free and were even seen in their houses when so required.

Common causes of illness of those treated were:—

Fever (unclassified)	...	640	Percentage	10.89
Dysentery and Diarrhœa	...	191	,,	3.25
Yaws ...	...	103	,,	1.76
Beri-beri	...	208	,,	3.52
Rheumatism	...	232	,,	3.95
Affection of the eye	...	210	,,	3.57
Bronchitis	...	402	,,	6.85
Gastric disorders	...	399	,,	6.85
Round-worm infections (primary) ...	...	413	,,	7.04
Skin diseases	...	492	,,	8.82
Ulcers	...	589	,,	10.00
Wounds	...	372	,,	6.34

The following table shows the nature of the patients treated:—

Number of indigent patients	...	4,652
Number of Government Officers	...	690
Number of Paying patients	...	530
Average number of visits per month	...	1,048
Number of males	...	4,533
Number of females	...	1,339

Two hundred and twenty-six injections of Neo Salvasan were given for Cases of Yaws.

(b) TRAVELLING DISPENSARY

Fifteen centres were visited once a week by a second grade Dresser and free treatments were given. Schools, Police stations and houses of headmen were used as centres. It is part of the routine duty of the Dresser to do propaganda work to promote sanitation in rural Districts.

Total number of patients treated was 2,780 as compared with 1,161 during the previous year.

The Nationalities of those treated were:—

Malays	...	...	...	1,587
Kadayans	...	...	...	788
Dusuns	...	...	...	59
Dayaks	...	...	...	32
Muruts	...	...	...	169
Chinese	...	...	...	143
Indians	...	...	...	2
				<hr/> 2,780 <hr/>

Total number of males treated ... 1,805

Total number of females treated ... 975

Common causes of illness of those treated were:—

Malaria unclassified	...	293	Percentage	10.54
Gastric disorder	...	211	,,	7.95
Round-worm infection (primary)	...	178	,,	6.40
Ulcers	...	558	,,	20.00
Skin diseases	...	471	,,	16.94
Affections of the eye	...	112	,,	4.00

(c) GOVERNMENT HOSPITAL, BRUNEI

The first Government Hospital was completed during the year and was opened on the 7th September, 1929, by His Highness the Sultan, while there were present most of the Government Officials, leading members of the public and the head men from various districts.

The Hospital includes a male ward for 20 beds, Office, Laboratory, Operation room, Dispensary, Quarters for one Dresser, Kitchen and three servants Quarters. Next year a Mortuary and Quarters for a Second Dresser are to be added.

The following table shows the number of cases admitted since the opening of the Hospital and Deaths:—

Admitted	Total treated	Discharged	Transferred	Absconded	Died	Remained at the end of 1929	Percentage of deaths to total treated	Daily average No. of patients
72	72	62	...	...	4	6	5.56	6.31

The following table shows the nationalities of those treated:—

Malays	...	...	...	30
Javanese	...	...	...	4
Dusuns	...	...	...	9
Chinese	...	...	...	20
Indians	...	...	...	6
Others	...	...	...	3
				—
				72
				—

A return of Diseases and Deaths (In-patients) is given in Table *I*: Appendix *D*.

A return of Operations performed during the year is given in Table *II*: Appendix *D*.

APPENDIX A.

TABLE I.

Births registered each month according to sex.

Jan.		Feb.		Mar.		Apr.		May		Jun.		Jul.		Aug.		Sep.		Oct.		Nov.		Dec.		Total	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
45	40	48	30	42	42	63	50	61	57	61	60	76	58	48	59	50	41	59	58	42	39	53	40	648	574

TABLE II.

Births registered according to Nationalities.

Malays	Kadayans	Dusuns	Muruts	Dayaks	Chinese	Javanese	Indians	Europeans	Others	Total
714	224	148	10	10	85	5	13	...	3	1,222

TABLE III.

Deaths registered during each month according to sex.

Jan.		Feb.		Mar.		Apr.		May		Jun.		Jul.		Aug.		Sep.		Oct.		Nov.		Dec.		Total	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
31	34	24	19	33	31	30	17	26	35	35	30	43	34	35	45	44	38	42	23	43	35	40	32	426	373

TABLE IV.

Deaths registered according to Nationalities.

Malays	Kadayans	Dusuns	Muruts	Dayaks	Chinese	Javanese	Indians	Europeans	Others	Total
514	155	51	16	7	41	6	6	...	3	799

APPENDIX A.—*Continued.*

TABLE V.

Infantile mortality registered during each month according to sex.

Jan.		Feb.		Mar.		Apr.		May		Jun.		Jul.		Aug.		Sep.		Oct.		Nov.		Dec.		Total	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
15	15	7	9	16	9	11	5	15	12	17	14	17	12	13	18	18	8	12	5	22	11	25	14	188	132

APPENDIX B.

Summary of Results of examination of School children 1929.

SCHOOLS		No. registered	No. examined	Poor general condition	Enlarged spleen	Skin diseases	Teeth defective	Affections of Respiratory system	Affections of Circulatory system	Required vaccination	Affections of eye	Affections of ear	Yaws
Brunei	...	432	413	175	62	52	143	12	3	22	8	6	4
Kilanas	...	14	14	6	2	8	6	2	...	2	...	1	2
Tutong	...	42	42	18	7	18	16	4	1	10	2	2	4
Bangar	...	10	10	5	1	3	3	...	...	4	...	...	...
Labu	...	34	34	17	5	5	8	...	2	8	2	...	2
Total	...	532	513	221	77	86	176	18	6	46	12	9	12
Percentage	...	...	...	43·08	15·05	16·76	34·31	3·31	1·17	8·97	2·34	1·75	2·34

APPENDIX C.

METEOROLOGICAL RETURN FOR THE YEAR, 1929

THERMOMETER MEAN (IN SHADE)

Month	TEMPERATURE		Rainfall
	Maximum	Minimum	
January ...	84.67°F	75.90°F	10.18 ins.
February ...	85.01 ,,	76.64 ,,	4.20 ,,
March ...	84.77 ,,	76.35 ,,	6.14 ,,
April ...	85.27 ,,	76.43 ,,	8.17 ,,
May ...	85.58 ,,	76.84 ,,	23.99 ,,
June ...	85.50 ,,	77.00 ,,	9.05 ,,
July ...	86.32 ,,	76.81 ,,	1.91 ,,
August ...	85.87 ,,	76.65 ,,	11.11 ,,
September ...	86.00 ,,	77.40 ,,	16.53 ,,
October ...	85.87 ,,	76.87 ,,	11.83 ,,
November ...	86.03 ,,	77.30 ,,	14.38 ,,
December ...	86.74 ,,	76.94 ,,	8.25 ,,
	1027.63°F	921.13°F	125.74 ins.

Mean Temperature 85.64°F

76.76°F.

APPENDIX D.

TABLE I.

GOVERNMENT HOSPITAL, BRUNEI.

Return of Diseases and Deaths (In-patients) for the year, 1929.

DISEASES	Remaining in Hos- pital at end of 1928	YEARLY TOTAL		Total cases treated	Remaining in Hos- pital at end of 1929	REMARKS
		Admissions	Deaths			
I.—Epidemic, Endemic and In- fectious diseases—						
Malaria B.T.	3	...	3	...	
„ S.T.	3	...	3	...	
„ Cachexia	6	...	6	...	
Pulmonary Tuberculosis	3	...	3	...	
Primary Syphilis	1	...	1	...	
Tertiary Syphilis	3	...	3	...	
Yaws	7	...	7	...	
Dysentery Amoebic	1	...	1	...	
Influenza	1	...	1	...	
Pyrexia w.o	1	...	1	...	
Leprosy	1	...	1	1	
II.—General Diseases not men- tioned above—						
Benign tumour	1	...	1	...	
Beri Beri	2	1	2	...	
III.—Affections of the nervous system and organs of the senses—						
Infantile Paralysis	1	...	1	1	
Neuralgia	1	...	1	...	
Affections of the organs of vision—						
Pterygium	1	...	1	...	
Retinitis	1	...	1	...	
Trachoma	1	...	1	...	
IV.—Affections of Circulatory system—						
Fatty degeneration Heart	1	1	1	...	
V.—Affections of Respiratory system—						
Bronchitis	6	...	6	...	
Asthma	1	...	1	...	
Pneumonia	1	1	1	...	
VI.—Diseases of Digestive system—						
Gastritis	2	...	2	...	
Ankylostomiasis	1	...	1	...	
Ascariasis	1	...	1	...	
Cirrhosis Liver	1	...	1	...	
Abscess Liver	1	...	1	...	
<i>Carried forward</i>	53	3	53	2	

APPENDIX D.—Continued.

DISEASES	Remaining in Hos- pital at end of 1928	YEARLY TOTAL		Total cases treated	Remaining in Hos- pital at end of 1929	REMARKS
		Admissions	Deaths			
<i>Brought forward</i>	53	3	53	2	
VII.—Diseases of Genito Uri- nary system—						
Chronic Nephritis	1	1	1	...	
Stone in Kidney	1	...	1	...	
Stone in Bladder	1	...	1	...	
VIII.—Affections of skin and cellular tissue—						
Ulcers	4	...	4	...	
Eczema	1	...	1	...	
Abscess	1	...	1	...	
IX.—Affections of bones and organs of locomotion—						
Arthritis	1	...	1	...	
X.—Affections produced by ex- ternal causes—						
Fracture Simple	2	...	2	1	
Burns	1	...	1	...	
Wounds	4	...	4	1	
XI.—Ill-Defined diseases—						
Observations	2	...	2	2	
Total	72	4	72	6	

TABLE II.

Return of operations performed during the year, 1929.

OPERATION	Total cases	Cured or relieved	Died	REMARKS
Abscess ...	10	10	...	
Tumour ...	3	3	...	
Stitching wounds ...	7	7	...	
Cyst ...	4	4	...	
Foreign body in muscle ...	2	2	...	
Haemorrhoid ...	1	1	...	
Cataract ...	2	2	...	
Liver Abscess ...	1	1	...	
Polypus Nose ...	2	2	...	
Total ...	32	32	...	

